IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Patent Application No. 09/955,473

Applicant: Paul W. Forney, et al.

Filed: September 17, 2001

TC/AU: 2174

Examiner: Ryan F. Pitaro

Docket No.: 213307

Customer No.: 23460

APPELLANTS' APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In support of the appeal from the final rejection dated April 17, 2006, Appellants now submit their Brief.

Real Party In Interest

The patent application that is the subject of this appeal is assigned to Invensys Systems, Inc.

Related Appeals and Interferences

There are no appeals or interferences that are related to this appeal.

Status of Claims

Claims 1-20 stand finally rejected, and these rejections are presently being appealed.

A complete listing of these claims appears in the Claims Appendix.

Status of Amendments

There were no amendments submitted after the final rejection.

Summary of Claimed Subject Matter

Claims 1-20, including independent claims 1, 8, 9, 10 and 11 are pending. The summaries of the independent claims reference the specification and drawings filed with the application on September 17, 2001.

Independent claim 1 pertains to a customer-configurable portal server (see, FIG. 2, portal server 100) for use in a plant process observation environment (p. 7, lines 26-33). The portal server collects plant process information based upon a user designated set of information sources. The collected plant process information is disseminated via the portal server (see, Fig. 2, portal server 100) to users (clients 120) that have accessed the portal server. More particularly, with regard to an extensible aspect of the portal server, an *extensible information source registry* (see, Fig. 2, configuration database 150, p. 9, lines 5-9; and Fig. 12, Data Provider Registry 420) stores identification information corresponding to an extensible set of plant information sources accessed via the portal server. The portal server also includes a portal server data interface (see, Fig. 2, data access subsystem 125, p. 11, lines 1-10; and Figs. 5 and 12). The portal server data interface, accessible via remote networked stations, provides user access to the plant information associated with the set of designated plant information sources. The extensible plant process observation portal also includes a portal configuration utility (see, Fig. 4, p. 10, lines 17-33). The portal configuration utility enables a user to at least designate a new plant information source (e.g., servers in Fig. 4, p. 8, lines 14-16, and p. 10, lines 17-32) via a configuration interface. The new plant information source designated by the user is thereafter added to the extensible set of plant information sources maintained in the extensible information source registry (see, p. 8, lines16-18, p. 10, lines 17-19, p. 21, lines 20-22).

Independent claim 8 also pertains to a customer-configurable plant process observation portal server (100) that collects plant process information in accordance with information source designations and disseminates the information to users via network connections (see, Fig. 2). In accordance with another extensible aspect of the portal server, an extensible set of *data handlers*

(see, Fig. 2, data handlers 130, p. 8, lines 27-33; and Fig. 12, Registry 420, p. 21, lines 13-22) are incorporated for processing differing *types* of data (e.g., alarms, OPC, etc.) from a set of plant information sources. The portal server data interface provides a user-side interface, accessible via remote networked stations, that provides user access to the plant information associated with the set of designated plant information sources (see, Fig. 2, data access subsystem 125, p. 11, lines 1-10; and Figs. 5 and 12). The extensible plant process observation portal also includes a portal configuration utility. The portal configuration utility enables a user to at least designate a new data handler via a configuration interface (see, p. 9, lines 11-15; p. 21, lines 1-22; and Figs. 14 and 15, and p. 23, lines 4-20). The new data handler designated by the user is thereafter added to the extensible set of data handlers (see, p. 21, lines 20-22).

Independent claim 9 also pertains to a customer-configurable plant process observation portal server (100). The portal server collects plant process information based upon a user designated set of information sources. The collected plant process information is disseminated via the portal server to users that have accessed the portal. An extensible information source registry stores identification information corresponding to an extensible set of plant information sources accessed via the portal server (see, Fig. 2, configuration database 150, p. 9, lines 5-9; and Fig. 12, Data Provider Registry 420). The portal server also includes a user-configurable portal server data interface. The portal server data interface, accessible via remote networked stations, provides user access to the plant information associated with the set of designated plant information sources (see, Fig. 2, data access subsystem 125, p. 11, lines 1-10; and Figs. 5 and 12). The extensible plant process observation portal also includes a portal data interface configuration utility. The portal data interface configuration utility enables a user to at least designate a new *user interface display element* for presenting plant process information (Fig. 12, web service handlers 425 and 427, and p. 21, lines 13-22). The new user interface display element designated by the user is thereafter added to the extensible set of plant information sources maintained in the extensible information source registry (see, p. 8, lines 16-18, p. 10, lines 17-19).

Independent claim 10 pertains to a method for facilitating configuring a customer-configurable plant process observation portal server to collect plant process information in accordance with user-specified information sources. Similar to claim 1, the claimed method

includes creating an extensible information source registry (see, Fig. 2, configuration database 150, p. 9, lines 5-9; and Fig. 12, Data Source Registry 420). The information source registry stores identification information corresponding to an extensible set of plant information sources accessed via the portal server. A portal server data interface, accessible via remote networked stations, is generated that provides user access to plant information represented in the extensible set of plant information sources (see, Fig. 2, data access subsystem 125, p. 11, lines 1-10; and Figs. 5 and 12). The claimed method further includes providing a portal configuration utility that enables a user to at least designate a new plant information source via a configuration interface (see, new servers in Fig. 4, p. 8, lines 19-24, and p. 10, lines 17-32). The new plant information source is thereafter added to the extensible set of plant information sources.

Independent claim 11 pertains to a method for configuring a plant process observation portal site, supported by a portal server, to extend a set of information sources associated with the portal site. The method includes accessing, via a browser, a configuration page associated with the portal site (see, Fig. 4, p. 10, lines 17-32). Thereafter a user specifies, via a graphical user interface, a new source of plant information accessed via the portal server (see, Fig. 4, p. 10, lines 17-32). Finally, the user specifies, via the graphical user interface, how information associated with the new source of plant information is visually rendered on visual displays associated with the plant process observation portal site (see, Fig. 12, web service handlers 425 and 427, p. 21, lines 13-22).

Grounds of Rejection to be reviewed on Appeal

The grounds of rejection to be reviewed on appeal are the grounds stated in the Final Office Action mailed on April 17, 2006. In particular, Appellants appeal:

1. The rejection of claims 1-3, 5, 6, and 8-20 under 35 U.S.C. 103(a) as being obvious over Khan et al. U.S. App. Serial No. 09/905,678 (filed on July 13, 2001, hereinafter the Khan '678 application) in view of Wewalaarachchi et al. U.S. Pat. No. 6,571,140 (the Wewalaarachchi patent).

2. The rejection of claims 4 and 7 under 35 U.S.C. 103(a) as being obvious over the Khan '678 application in view of Wewalaarachchi et al. U.S. Pat. No. 6,571,140 (the Wewalaarachchi patent) and Polizzi et al. U.S. App. Serial No. 09/844,715 (the Polizzi application).

Argument

Appellants request reversal of the rejection of presently pending claims 1-20 (provided in the Claims Appendix attached hereto) that are directed to a customer-configurable, extensible plant process observation portal server. The claimed *portal server* is extensible by a customer in a number of respects, including adding new: data sources/providers (servers) that are accessed via the portal server, data handlers that process new data types, and new display elements for viewing data provided by plant information sources. The disclosed and claimed customer-configurable plant process observation portal server addresses challenges uniquely presented to providing a portal server that facilitates access by browser clients to a variety of plant data sources that are not generally accessible to the public (via the Internet) and plant information that is not formatted for access via the Internet.

The final rejection of the presently pending claims is improper for at least two reasons. First, the Khan application, upon which the final rejection of all claims rely, does not have priority over (and is therefore not applicable prior art) the presently pending application claims because the disclosure upon which the rejection relies is not provided in Khan C-I-P's parent application. Second, the claimed invention is not rendered obvious by the combined teachings of the Khan application and the Wewalaarachchi patent since there is no suggestion/motivation to apply Khan's disclosed user-configurable portal sites that allow users to aggregate a set of public links into a personalized portal site to a plant process environment to render Appellants' claimed customer-configurable plant portal server. Khan's user-configurable portal sites, which are based upon publicly accessible Web page links, seem wholly inappropriate for a plant process information environment.

Furthermore, Appellants disclose and claim an extensible set of "data handlers" that are incorporated into the plant process observation portal. The data handlers (see, Data Handlers 130 in Fig. 2) process received data of differing types within the portal server prior to forwarding the data to client browsers. Neither the Khan nor the Wewalaarachchi references even remotely disclose/suggest such handlers. For at least this reason claims 5, 8, and 12-15 and 17-20 are patentable over the Khan in view of Wewalaarachchi.

Each of these grounds for Appellants' appeal is addressed further herein below.

Rejection of Claims 1-3, 5, 6, and 8-20 over the Khan '678 App. In View of Wewalaarachchi

Claims 1, 2, 3, 6, 9, 10, 11 and 16

1. The Khan et al. published application US 2002/0046254 is not prior art

The invention recited in presently pending claim 1 (recited in its original form at page 119 of the provisional application) of the Forney '473 application (filed on Monday, September 17, 2001) is supported by Appellants' provisional application filed on September 15, 2000. The recited elements of claim 1 are disclosed in the provisional application, for example, at page 42 (overview), page 45 (2.8 Configurable Factory Portal), pages 52-53 (data source configuration), pages 55-60 (historical data and factory alarms), page 80 (portal network architecture), pages 84-85 (Configurable/Customizable framework), page 87 (Multiple Data Source Configuration), and pages 99 et seq. (overview of entire system). Appellants are therefore entitled to *at least* the priority date of their provisional application filed on **September 15, 2000**. Though unnecessary to pre-date the cited Khan '678 published application, Appellants are entitled to an even earlier date based upon their earlier conception and diligence regarding the claimed invention.

The Khan '678 application, upon which the Final Office Action relies, was filed on **July 13, 2001** (after the priority of Appellants' presently rejected application claims). The Kahn '678 application is a C-I-P of another application (Khan et al. U.S. Patent 6,438,575) filed on June 16, 2000. However, the Final Office Action's rejection of claim 1 relies upon disclosure in the Khan '678 application (e.g., paragraphs [0005, 0077-79]) that does not appear to be present in the Khan et al. U.S. Patent 6,438,575, and therefore the disclosure in the '678 application upon which the Final Office is not entitled to the earlier filing date of the '575 patent. For at least this reason, the Final Office Action's rejection of claim 1, and each of the independent claims for which a rejection relies upon the disclosure of paragraphs [0077-79] of the Khan '678 application, should be reversed.

2. The Final Office Action does not present a prima facie case of obviousness

Appellants submit that the final rejection does not present a *prima facie* case of obviousness since it does not show proper motivation to one skilled in the art at the time of the invention to modify the Khan application's user-configurable portal sites (even if considered

prior art) to render the presently claimed invention. The Final Office Action asserts that the Khan '678 application, at paragraphs 0077-79, discloses a user-configurable information portal site (that Appellants have noted above does not appear to be disclosed in the Khan '575 patent from which the Khan '678 C-I-P application claims priority). The Final Office Action admits that Khan, having nothing whatsoever to do with plant process information portals, does not disclose or suggest Appellants' claimed customer-configurable plant process observation portal server that provides access to an extensible set of plant information sources. The Final Office Action nonetheless concludes that the claimed invention is obvious solely because, as shown in the secondary reference (Wewalaarachchi), plant process control systems were known at the time of the invention, and such system would "provide diverse way to control a real time system." The Final Office Action later explains, in the first paragraph of page 7 that modifying Kahn in view of Wewalaarachchi would allow a user to access and manage information from any source.

Providing a portal server for accessing a variety of proprietary/non-standard data sources/types presents unique challenges that are not present in the user-configurable portal sites described in the Khan '678 application. Appellants' application explains in the Background (see, page 3, line 25, to page 4, line 7) that accessing process control systems and associated plant/process information presents unique issues/hurdles that are not present in typical publicly accessed portals (e.g., Yahoo.com). Such issues include: connecting the servers to data sources, handling a wide variety of information types, and the unique nature of virtually each plant control system data source set served by each installed portal server. As a result, developing/maintaining a portal server in a plant process environment is not even remotely comparable to supporting user-defined portal sites containing links to already Internet-accessible Web sites/pages (disclosed in the Khan reference). These differences between Khan's disclosed system and Appellants' claimed invention are addressed, for example, by the interfaces, toolkits, and databases described by Appellants in the written description and drawings of the present application. Therefore, the existence of plant processes and process control systems (as disclosed in the Wewalaarachchi patent) does not, by itself, provide proper motivation to modify Khan's disclosed system to render the claimed customer-configurable plant process observation portal server (supporting the designation of new plant information sources).

Substantial differences exist between Khan's system and one that is suitable for providing access to non-public, highly sensitive plant process information that is provided in a variety of forms by a variety of plant information sources. Because the user-defined personal portal sites described in paragraphs 0077-79 of the Khan '678 application provide access to already Internet-accessible web sites/pages (e.g., on-line newspapers and other public content providers), the Khan application describes a relatively simple information portal site configuration task that involves a user designating the already Internet-accessible Web pages/links for a list of pages that are incorporated into the user's personalized portal site. However, the Kahn '678 application's methodology for adding new publicly available web pages is wholly inapplicable to a plant/process control environment (as explained by Appellants in the Background of the present application) wherein information from a plant/process server is not already Internet-accessible via publicly accessible links. Instead, as explained by Appellants' in their presently pending application, the plant process information is received from a non-public data source (e.g., a SQL server) and converted by an appropriate handler on the portal server into an appropriate form/format that is thereafter provided by the plant portal server to a browser client. The Internet-accessible page/site content environment within which the disclosed Kahn system operates is incomparable to a plant process environment disclosed/claimed in the present application. Therefore, the claimed plant process portal server, including a configuration utility supporting extending the set of plant information sources accessed via the portal server, is not suggested by the combined teachings of Kahn and Wewalaarachchi.

In view of the substantial differences between the general Internet page/site aggregation portal site disclosed in Khan and Appellants' disclosed/claimed plant process observation portal server, the Final Office Action's obviousness rejection of each of the independent claims based upon a bare assertion that it is desirable to have diverse ways to control a real time system, is improper and should be reversed.

Claims 5 and 8

Claims 5 and 8 recite a further capability of the portal configuration utility that facilitates extending the set of *data handlers* within the portal server. Each data handler (see, extensible set of Data Handlers 130 in Fig. 2) processes a particular type of plant process information provided

by a source of plant information. Appellants submit that neither Khan nor Wewalaarachchi discloses a set of data handlers for handling plant information of different types as disclosed and claimed. The Final Office Action cites column 7, lines 41-54 of Wewalaarachchi as disclosing this additional element. However, the cited text from Wewalaarachchi merely discloses adding a new "data source" which is unequivocally distinguished by Appellants in their claims and written description (compare Fig. 4's adding a data source providing data processed by an existing data handler and Figs. 14/15 for adding a new data handler for a new type of information). Appellants' specification discloses an enhanced embodiment including an associated configuration interface (Figs. 14/15) wherein a customer-configurable plant process observation portal server supports designating a new handler for processing received information in a new way (e.g., different protocol/format).

Claims 12-15 and 17-20

Appellants furthermore traverse the rejection of claims 12-15 and 17-20. The recited data handlers are incorporated within the portal server. The presence of such data handlers within the portal server makes clear the fundamental differences between Appellants' disclosed/claimed invention and the system disclosed in the Khan application which merely enables users to designate links to sources of interest but does not describe any intermediate "handlers" for processing data received from the linked sources. Khan's portal server does not include/require any type of specialized data handlers to handle information of a particular type. The portion of Wewalaarachchi referenced by the Final Office Action does not appear to have any disclosure whatsoever to suggest modifying Khan's portal server to include multiple data handlers of the specified types. For at least this reason the obviousness rejections of each of the claims reciting a "data handler" should be reversed.

Rejection of claims 4 and 7 over Khan in view of Wewalaarachchi and Polizzi

Appellants seek reversal of the rejection of claim 4 for at least the reasons set forth herein above with regard to claim 1 from which claim 4 depends.

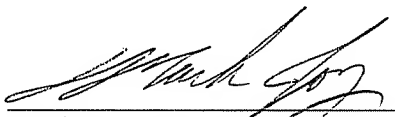
Appellants seek reversal of the rejection of claim 7 for at least the reasons set forth herein above with regard to claim 1.

Conclusion

In summary, the present invention is not rendered obvious from the combined teachings the Khan C-I-P application and the Wewalaarachchi patent. The Khan application's disclosure is not prior art. Furthermore, the Khan user-configurable portal sites operate on Internet-accessible Web pages/sites and differ substantially from Appellants' claimed plant process environment. One skilled in the art would therefore not modify Khan's system in view of Wewalaarachchi to render Appellants' claimed invention. For these reasons, as well as others stated herein above, the presently pending claims are patentable over the prior art presently known to Appellants.

Appellants therefore request reversal of the presently pending rejection of claims 1-20.

Respectfully submitted,



Mark Joy, Reg. No. 35,562
LEYDIG, VOIT & MAYER, LTD.
Two Prudential Plaza
180 North Stetson Ave., Suite 4900
Chicago, Illinois 60601-6731
(312) 616-5600 (telephone)
(312) 616-5700 (facsimile)

Date: February 16, 2007

Claims Appendix

1. (Previously presented) A customer-configurable plant process observation portal server for collecting plant process information, in accordance with a user designated set of information sources, and for disseminating the information to users via network connections, the portal server comprising:

an extensible information source registry for storing at least identification information corresponding to an extensible set of plant information sources accessed via the portal server;

a portal server data interface, accessible via remote networked stations, providing user access to plant information associated with the set of designated plant information sources; and

a portal configuration utility enabling a user to at least designate a new plant information source via a configuration interface, the new plant information source thereafter being added to the extensible set of plant information sources.

2. (Original) The portal server of claim 1 wherein the portal configuration utility further enables a user to designate a manner in which data from sources of information is visually depicted on a user interface rendered by the portal server for a particular portal site.

3. (Original) The portal server of claim 1 wherein the portal server comprises at least one association with an Internet portal site from which data received from plant information sources is accessed by users.

4. (Original) The portal server of claim 1 wherein the portal server comprises at least one association with an intranet portal site from which data received from plant information sources is accessed by users.

5. (Original) The portal server of claim 1 wherein the portal configuration utility further enables a user to designate a new data handler to be added to an extensible set of data handlers that process information of particular types provided by the extensible set of plant information sources.

6. (Original) The portal server of claim 1 wherein the portal configuration utility includes computer program instructions for rendering a configuration template prompting a user to provide information associated with the new plant information source.

7. (Original) The portal server of claim 6 wherein the configuration template comprises a Web page, and the portal configuration utility is accessible by a browser.

8. (Previously presented) A customer-configurable plant process observation portal server for collecting plant process information in accordance with information source designations and for disseminating the information to users via network connections, the portal server comprising:

an extensible set of data handlers for processing differing types of data from a set of plant information sources accessed via the portal server;

a portal server data interface, accessible via remote networked stations, providing user access to plant information associated with the set of plant information sources; and

a portal configuration utility enabling a user to designate a new data handler via a configuration interface, the new data handler thereafter being added to the extensible set of data handlers.

9. (Previously presented) A customer-configurable plant process observation portal server for collecting plant process information in accordance with user specified information source designations and for disseminating the information to users via network connections, the portal server comprising:

an extensible information source registry for storing at least identification information corresponding to an extensible set of plant information sources accessed via the portal server;

a user-configurable portal server data interface, accessible via remote networked stations, providing user access to plant information represented in the extensible set of plant information sources; and

a portal data interface configuration utility enabling a user to at least designate, via a configuration interface, a new user interface display element for presenting plant process information, the new user interface display element thereafter being added to the extensible set of plant information sources.

10. (Previously presented) A method for facilitating configuring a customer-configurable plant process observation portal server to collect plant process information in accordance with user-specified information sources, the method comprising the steps of:

creating an extensible information source registry for storing at least identification information corresponding to an extensible set of plant information sources accessed via the portal server;

generating a portal server data interface, accessible via remote networked stations, providing user access to plant information represented in the extensible set of plant information sources; and

providing a portal configuration utility enabling a user to at least designate a new plant information source via a configuration interface, the new plant information source thereafter being added to the extensible set of plant information sources.

11. (Previously presented) A method for configuring a plant process observation portal site, supported by a portal server, to extend a set of information sources associated with the portal site, the method comprising the steps of:

accessing, via a browser, a configuration page associated with the portal site;

first specifying, via a graphical user interface, a new source of plant information accessed via the portal server; and

second specifying, via the graphical user interface, how information associated with the new source of plant information is visually rendered on visual displays associated with the plant process observation portal site.

12. (Previously presented) The portal server of claim 1 further comprising:

a plurality of data handlers that process information of particular types provided by the extensible set of plant information sources.

13. (Previously presented) The portal server of claim 12 wherein the plurality of data handlers comprises a process history database handler.

14. (Previously presented) The portal server of claim 12 wherein the plurality of data handlers comprises an alarm handler.

15. (Previously presented) The portal server of claim 12 wherein the plurality of data handlers comprises a data exchange protocol-specific handler.

16. (Previously presented) The portal server of claim 1 wherein the extensible source registry facilitates storing plant information provided by multiple controllers, thereby facilitating accessing data generated by multiple controllers via a single physical node on a process control network.

17. (Previously presented) The portal server of claim 8 wherein the set of data handlers comprises a process history database handler.

18. (Previously presented) The portal server of claim 8 wherein the set of data handlers comprises an alarm handler.

19. (Previously presented) The portal server of claim 8 wherein the set of data handlers comprises a data exchange protocol-specific handler.

20. (Previously presented) The portal server of claim 8 wherein the set of data handlers comprises a data handler for processing data from a controller, thereby facilitating accessing data generated by multiple controllers via a single physical node on a process control network.

Evidence Appendix

Not Applicable

Related Proceedings Appendix

Not Applicable